Aero Design Ltd.

Work Order Control Sheet

Work Order#: 2015-99 **Date Opened:** 14-Sept-15 **Title:** Fabrication

Aircraft OEM: Bell **Aircraft Model:** 407 **Product Type:** Cargo Basket **Product Model:** High **Quantity:** 7

Work Order Contents

	Initial or N/A
Work Order/Build Sheets (Procedures Provided)	JR
Additional Work Sheets (Standard Practice)	N/A
Drawings (See List Below)	JR
Parts Distribution Sheet	JR
Sub Component Tags	N/A
Completed Certification	N/A
Time Sheet (R&D)	N/A
Notes	N/A

Build Sheet Contents

	Initial or N/A
Tasks Initialled	JR
Dual Inspections Initialled	JR

Drawing List

Drawing #	Rev #	Description	Initial or N/A
60632	1	Lid	JR
76623	0	Hoop	JR
76611	1	Body	JR
76622	0	Att Hoop	JR
69811	3	Body	JR
76621	0	End Hoop	JR

Traveller

Initial or N/A

Component Completion

	As Instructed
Quantity Complete on This Work Order	7
Quantity Incomplete on This Work Order	N/A
Further Processing Required Before Release	N/A
Release to Stock as Components	JR

Certification

	Initial or N/A
Form One Completed	N/A
Serviceable (Green) Tag Completed	N/A
In Process (Yellow) Tag Completed	N/A
Unserviceable (Red) Tag Completed	N/A
Parts Tracking (White) Tag Completed	JR
Parts Placed in Stores for Distribution	N/A

Additional Documentation

	Initial or N/A
Documentation of a minor change	N/A
Non-Conformance Report Required	N/A
Service Difficulty Report Required	N/A

Billing

	Initial or N/A
Local (Aero Design)	JR
Research and Development	N/A
Third Party	N/A

Work performed by:	Print: J Rekve for M Rekve	Sign:	SCA: AD01	Date: 25-Nov-15
ICC / Dual Inspection preformed by:	Print: Jason Rekve	Sign:	SCA: AD01	Date: 25-Nov-15
Work Order closed by:	Print: Jason Rekve	Sign:	SCA: AD01	Date: 25-Nov-15

CARGO BASKET LID FABRICATION - COMMON

2015-99
407 HIGH SKI LID
(7)

General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only
69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket
94612, Revision 0 – Extra-Wide Low Mounted Ski Basket
~~76612~~, Revision 0 – High Mounted Ski Basket
60632 JC.

Eurocopter AS350/AS355 – left or right
77612, Revision 1 – Short Basket
69812, Revision 3 – Medium Basket (left and right)
78412, Revision 2 – Long Basket
94012, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right
90612, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only
80212, Revision 0 – Short Basket
80312, Revision 0 – Medium Basket
81112, Revision 0 – Long Basket

Bell 429 – right or left
95912, Revision 0 – Standard Basket

Bell Medium – left or right
75112, Revision 0 – Standard Basket
95512, Revision 0 – Extra Large (ski) Basket

MD600
82812, Revision 0 – Standard Basket

Options
70405, Revision 3 – Walkway
70402, Revision 1 – Lid Door

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Work Order: 2015-99

Date Open: 14 SEPT 2015

1. Rim Assembly – Basket Lid — ADO6
   a. Cut and fit ¾" x 0.035 material to fit rim jig, 45 degree ends.
      i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
   b. Record material PO on attached material list.
   c. Remove writing on tubes with acetone and scotch bright.

2. Weld Rim Assembly — AD-05
   a. Record welding rod PO on attached material list.

3. Inspection — ADO6
   a. Rim for complete welds

4. Frame assembly – Lid — ADO6
   a. General
      i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
   b. Insert rim from step 2 into jig.
   c. Cut and fit ¾" x 0.035 material, 21" long, for lid cross members.
   d. Record material PO on attached material list.
   e. Remove writing on tubes with acetone and scotch bright.
   f. Drill vent holes into rim to vent cross members into rim.
   g. Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

5. Frame assembly – Lid with optional walkway modification — ADO6
   a. Fit cross members to rim in accordance with step 4.
   b. Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
   c. Cut ½" x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
   d. Drill vent holes into cross members at walkway stingers.
   e. Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

6. Weld frame assembly. — AD-05
   a. Record welding rod PO on attached material list.
   b. Jigs must remain in place for as long as practical during welding.

7. Inspection — ADO6
   a. Frame assembly for complete welds.

8. Mesh assembly. AD06

   Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

   a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
   b. Cut mesh to size for lid.
   c. Remove surface rust with scotch-brite.
   d. Ensure lid is prepared for mesh on the correct side.

9. Weld mesh to frame assembly per drawing. AD-05

   a. General welding requirements for all lids:
      i. Every intersection on all edges.
      ii. First 5 intersections along cross members, then every second intersection.
   b. MIG weld both short sides.
   c. Clamp lid over spacer at centre of lid to pre-tension mesh.
      i. ¾" for lids under 76"
      ii. 1" (check) for lids over 76"
   d. Weld remainder of mesh as indicated in a.
   e. Record welding rod PO on attached material list.

10. Weld lid components. AD-05

    a. Handle brackets, locate in accordance with drawing.
       i. Standard location: ¼" outside of last cross member on both ends.
       ii. Record handle bracket WO and welding rod PO on attached material list.
    b. Lid prop bushing(s).
       i. one or two in accordance with drawing.
       ii. Record lip prop bushing WO and welding rod PO on attached material list.
    c. Placard bracket. – not installed on 95912 (Bell 429)
       i. Locate on cross member to set bracket in centre bay of lid.
       ii. Record placard bracket WO and welding rod PO on attached material list.

11. Clean up AD06

    a. Grind high spots off mesh welds.
    b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
    c. Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
    d. Drill #9 through lid prop bushing(s). De-burr hole(s).
    e. Drill for lid bumpers using 1/4" (#3) centre drill.
       i. 3 places for lids under 76"
       ii. 4 places for lids over 76"
    f. Remove surface rust with scotch-brite pad.

12. Final Inspection

    To be completed by a different person than the previous steps.

    a. Basket lid assembly for complete welds, and required minimum mesh weld locations.
    b. Material lists complete.
    c. Overall condition and conformity to drawing(s).

13. Powder Coating
    a. Parts are to be powder coated white in accordance with commercial practices.
    b. Record powder coating PO.
    c. Inspect powder coating on receiving.
    d. Tag lid assembly and place into stock in preparation for assembly.

2015-99

407 HIGH SKI BASKET BODY (7)

CARGO BASKET BODY FABRICATION - COMMON

General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only
69811, Revision 3 – Standard Low Mounted Basket
94511, Revision 0 – Extra-Wide Low Mounted Basket
94611, Revision 0 – Extra-Wide Low Mounted Ski Basket
76611, Revision 0 – High Mounted Ski Basket
Options 70404, Revision 2 – Front end cutout – 698
70411, Revision 0 – Front end cutout – 945/946

Eurocopter AS350/AS355 – left or right
77611, Revision 1 – Short Basket
76411, Revision 3 – Medium Basket (left or right)
78411, Revision 2 – Long Basket
94011, Revision 0 – Extra Large (ski) Basket
Options 70406, Revision 2 – Front end cutout – 764/776/784/940

Robinson R44 – left or right
90611, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only
80211, Revision 0 – Short Basket
80311, Revision 0 – Medium Basket
81111, Revision 0 – Long Basket
Options 70406, Revision 2 – Front end cutout – 802/803/811

Bell 429 – right or left
95911, Revision 0 – Standard Basket

Bell Medium – left or right
75111, Revision 0 – Standard Basket
95511, Revision 0 – Extra Large (ski) Basket
Options 70407, Revision 1 – Front end cutout – 751
704 , Revision – Front end cutout – 955

MD600
82811, Revision 0 – Standard Basket

Options – Applicable to all models
70403, Revision 5 – Auxiliary Latch

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

Work Order: 2015-99

Date Open: 14 SEPT 2015

1. Rim Assembly – Basket Body — AD06
    a. Cut and fit ¾" x 0.035 material to fit rim jig.
        i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
    b. Record material PO on attached material list.
    c. Remove writing on tubes with acetone and scotch bright.
    d. For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
    e. *94611 (206L/407 XL ski) only* – drill for 4 threaded bushings before assembling rim.

2. Weld Rim Assembly. — AD-05
    a. Record welding rod PO on attached material list.
    b. *94611 (206L/407 XL ski) only* – weld 4 threaded bushings into inboard rim tube.

3. Inspection — AD06
    a. Rim for complete welds

4. Frame assembly – body — AD06
    a. General
        i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
    b. Grind corner welds from step 2 on rim to allow hoops to sit flat.
    c. Pull required hoops from stock - standard, attachment, handle.
        i. If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
        ii. Ensure vent hole is located at centre of tube to vent spine tubes.
    d. Assemble hoops with attachment lug locating jig and hoop spacing jig.
        i. Ensure correct order and orientation of hoops. Refer to drawing.
            1. Attachment lugs are on inboard side.
            2. Handle bracket bushings are on outboard side, second hoop from both ends. May be on attachment hoops.
        ii. Run 3/8-24 tap into attachment lugs to ensure clear threads.
        iii. Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
        iv. Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
        v. Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
    e. Cut ½" x 0.035 material to fit spine jig.
    f. Cut ½" x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
        i. Refer to applicable drawing for position, not required on some baskets.
    g. *Option*: Cut ½" x 0.035 material for front end cutout. Record material PO on attached material list.
    h. *90611 (R44) only*: Cut ½" x 0.035 material to fit front end structure. Record material PO on attached material list.
    i. Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.

j. Record hoop WOs and material POs on attached material list.
k. Remove writing on tubes with acetone and scotch bright.
l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
m. Align hoops to rim in accordance with drawing. General positions:
    i. Extra large baskets
        1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
        2. outboard side of hoops (handle side) aligns to INSIDE of rim
        3. forward and aft hoops align to INSIDE of rim
    ii. All other baskets
        1. inboard side of hoops (attachment side) aligns to INSIDE of rim
        2. outboard side of hoops (handle side) aligns to INSIDE of rim
        3. forward and aft hoops align to INSIDE of rim, except R44

5. TIG weld frame to rim assembly. AD-05
    a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
    b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
    c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
    d. Record welding rod PO on attached material list.

6. Inspection AD06
    a. Frame assembly for complete welds.

7. Mesh assembly. AD06
    a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
    b. Cut mesh to size for body.
    c. Remove surface rust with scotch-brite.
    d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
        i. For extra wide baskets only –
            1. Set ¾" angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
            2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
            3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
        ii. Using markings on table, align sheet to indicated edge.
        iii. Using markings on table, align 3" tube to required position and clamp tube in place.
        iv. Bend mesh by hand tightly over tube along length of tube.
        v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
        vi. Bend mesh by hand tightly over tube along length of tube.
    e. Install attachment lug jig onto basket frame.

f. Ensure end struts are welded in basket frame if required by the drawing.
g. Insert mesh into basket.
    i. General
        1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
        2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
        3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
        4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
    ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
    iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
    iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
    v. Clamp mesh to spine in at least 1 place per section.
    vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
    vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
    viii. Trim ends to land on hoops, at mesh intersections if possible.
h. Cut mesh to fit ends. Record material PO on attached material list.
    i. Remove surface rust with scotch-brite.
    ii. Ensure mesh is cut at intersections where possible.
    iii. Bend top edge of mesh 1/8"-3/16" down at 45 degrees
    iv. Cut for front end cutout if required.
i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.
    i. Remove surface rust with scotch-brite.
    ii. Ensure mesh is cut at intersections where possible.
    iii. Bend top edge of mesh 1/4" down at 60 degrees.
    iv. Fit mesh to front end of basket.

Complete
(initial or SCA #)

8. Weld mesh to frame assembly per drawing. AD-05
    a. Ensure lug locating jig is in place prior to welding.
    b. General welding requirements for all baskets, MIG welding:
        i. Every intersection at top edges.
        ii. Every intersection at ends.
        iii. First 5 intersections down on hoops, then every second intersection.
        iv. Every intersection along spine.
        v. Extra large baskets – every intersection along corner.
        vi. Every intersection around ends
        vii. Every intersection along struts (if applicable)
    c. Bend and trim cells bent in to fit mesh as required and weld in position.
    d. Grind high spots off body mesh welds on ends before welding end mesh.
    e. *90611 (R44) only* – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
    f. Record welding rod PO on attached material list.

9. Weld basket components AD-05
    a. TIG weld lid prop bushing(s), one or two per drawing.
        i. Record welding rod PO on attached material list.
        ii. Record lip prop bushing WO on attached material list.
    b. TIG weld caps to close top of 1" hoops as applicable.
    c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
        i. Cut inboard rim on aft end. Grind flush with hoops.
        ii. TIG weld caps on open tubes.
        iii. Record cap material PO on attached material list.
    d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
        i. Record welding rod PO on attached material list.
        ii. Record placard bracket WO on attached material list.

10. Clean up ~~AD06~~
    a. Grind high spots off mesh welds.
    b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
    c. Drill #9 through lid prop bushing(s). De-burr hole(s).
    d. Remove surface rust with scotch-brite pad.

11. Final Inspection
    To be completed by a different person than the previous steps.
    a. Basket body assembly for complete welds, and required minimum mesh weld locations.
    b. Filled vent holes – usually on hoops
    c. Overall condition and conformity to drawing(s).
        i. Hoops for height.
        ii. Rim for width and length and alignment.
        iii. Lid prop lugs in correct ends.
        iv. Fore/aft strut in hoop if required by drawing.
    d. Material lists complete.

e. Tag complete basket body assembly in preparation for powder coating.

12. Powder Coating
    a. Parts are to be powder coated white in accordance with commercial practices.
    b. Record powder coating PO.
    c. Inspect powder coating on receiving.
    d. Tag basket body assembly and place into stock in preparation for assembly.

Work Order: 2015-99

Date Opened: 14 SEPT 2015

Material Tracking Sheet
Bell 206L / 407
HIGH Basket Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	7		**76611-01**	**Basket Assembly**		
Step 1				*Rim Assembly*		
	. 2		--	3/4" Tube - Long Rim (93.25")	4130 Steel, ¾" x 0.035 Sqr. Tube	14099
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, ¾" x 0.035 Sqr. Tube	14099
Step 2				*Weld Rim Assembly*		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 3				*Inspection - Rim*	*None*	
Step 4				*Frame Assembly*		
	. 4		76623-01	Hoop - standard	4130 Steel, ½" x 0.035 Sqr. Tube	14009
	. 1		76621-01	Forward Attachment Hoop		2014-70
	. 1		76622-01	Aft Attachment hoop		
	. 4		--	1/2" Tube - spine	4130 Steel, ½" x 0.035 Sqr. Tube	14099
Step 5				*Weld Frame Assembly*		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 6				*Inspection - Frame Assembly*	*None*	
Step 7				*Mesh Assembly*		
	. 1		--	Mesh (Body - 56" x 96")	3/4-16F Expanded Mild Steel sheet	15037
	. 2		--	Mesh (End - 22" x 19")	3/4-16F Expanded Mild Steel sheet	15037
Step 8				*Weld Mesh*		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	15027
Step 9				*Weld Basket Components*		
	. 1		49215-01	Spacer (Lid prop)	304 Stainless Steel, ½" Dia.	2015-07
	. A/R		--	Welding Rod	ER308L TIG Rod	

Work Order: 2015-99

Date Opened: 14 SEPT 2015

Material Tracking Sheet
Bell 206L / 407
HIGH Basket Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 10				*Clean Up*	*None*	
Step 11				*Inspection - Final Assembly*	*None*	
Step 12				*Powder Coating*		

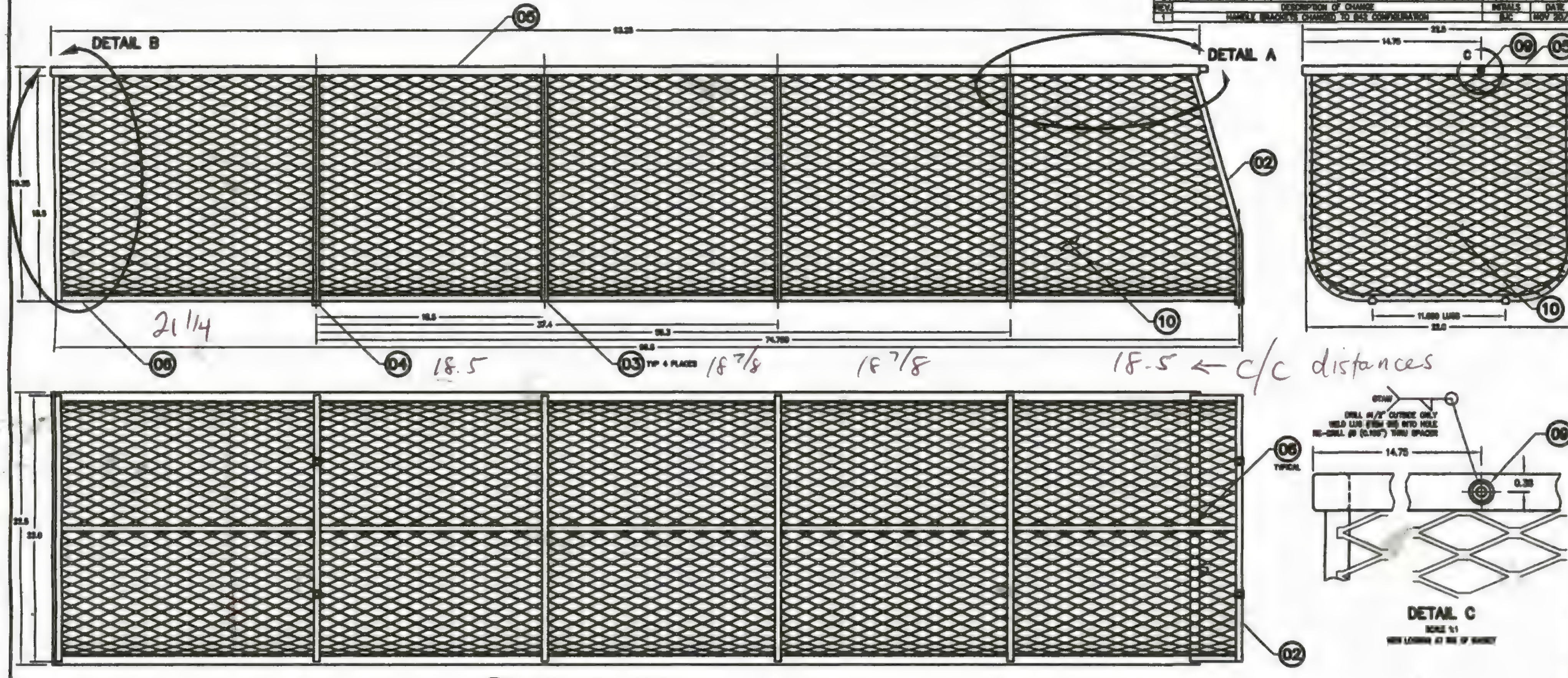
Aero Design
Parts Distribution Sheet

Description: _____ WO# 2015-99

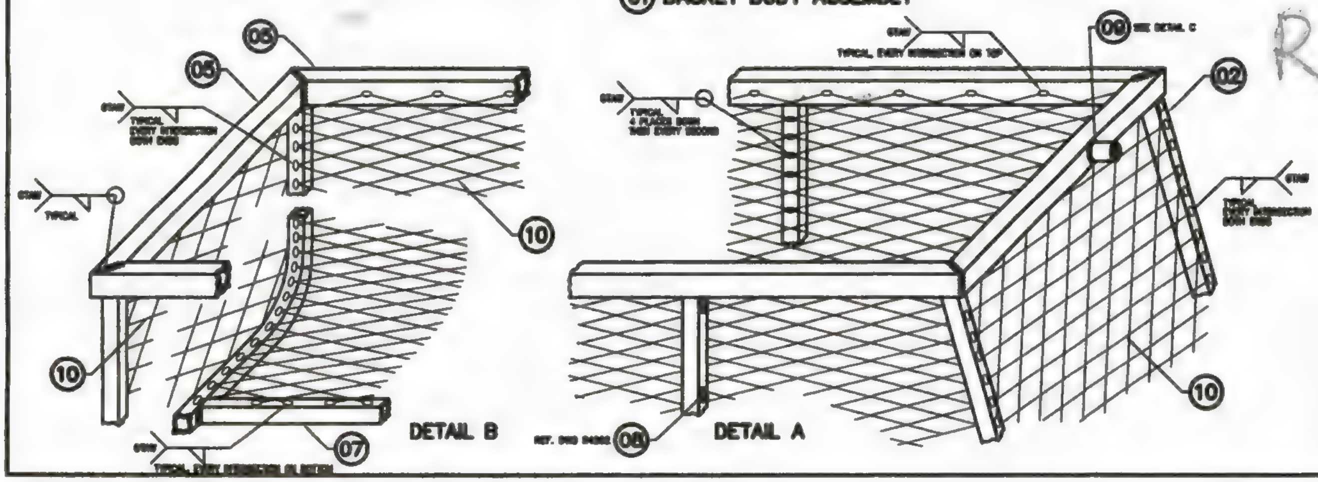
From PO or WO #	Quantity	Description	Part Number	For WO #
		See build sheets		

2015-99.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	HANDLE BRACKETS CHANGED TO [illegible] CONFIGURATION	[illegible]	NOV [illegible]



(01) BASKET BODY ASSEMBLY



NOTES:

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AWS [illegible]. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
3. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
4. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY.

QTY.	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC.	STOCK SIZE
A/R	[illegible]	10	MESH		18 GAUGE	
1	[illegible]-01	09	LUG			
1	[illegible]-01	08	HANDLE BRACKET ASSY			
		07				
A/R	--	06	1/2" TUBE	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 SQR. TUBE
A/R	--	05	3/4" TUBE	4130 STEEL COND. N	MIL-T-6736	0.75 X 0.035 SQR. TUBE
1	[illegible]-01	04	ATTACHMENT HOOP			
4	[illegible]-01	03	HOOP			
1	[illegible]-01	02	END HOOP ASSY			
	[illegible]11-01	01	BASKET BODY ASSEMBLY			

LIST OF MATERIALS

APPROVALS		DATE
DRAWN	JEFF CLARKE	25 SEPT 2007
CHECKED	E. BURGON	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:

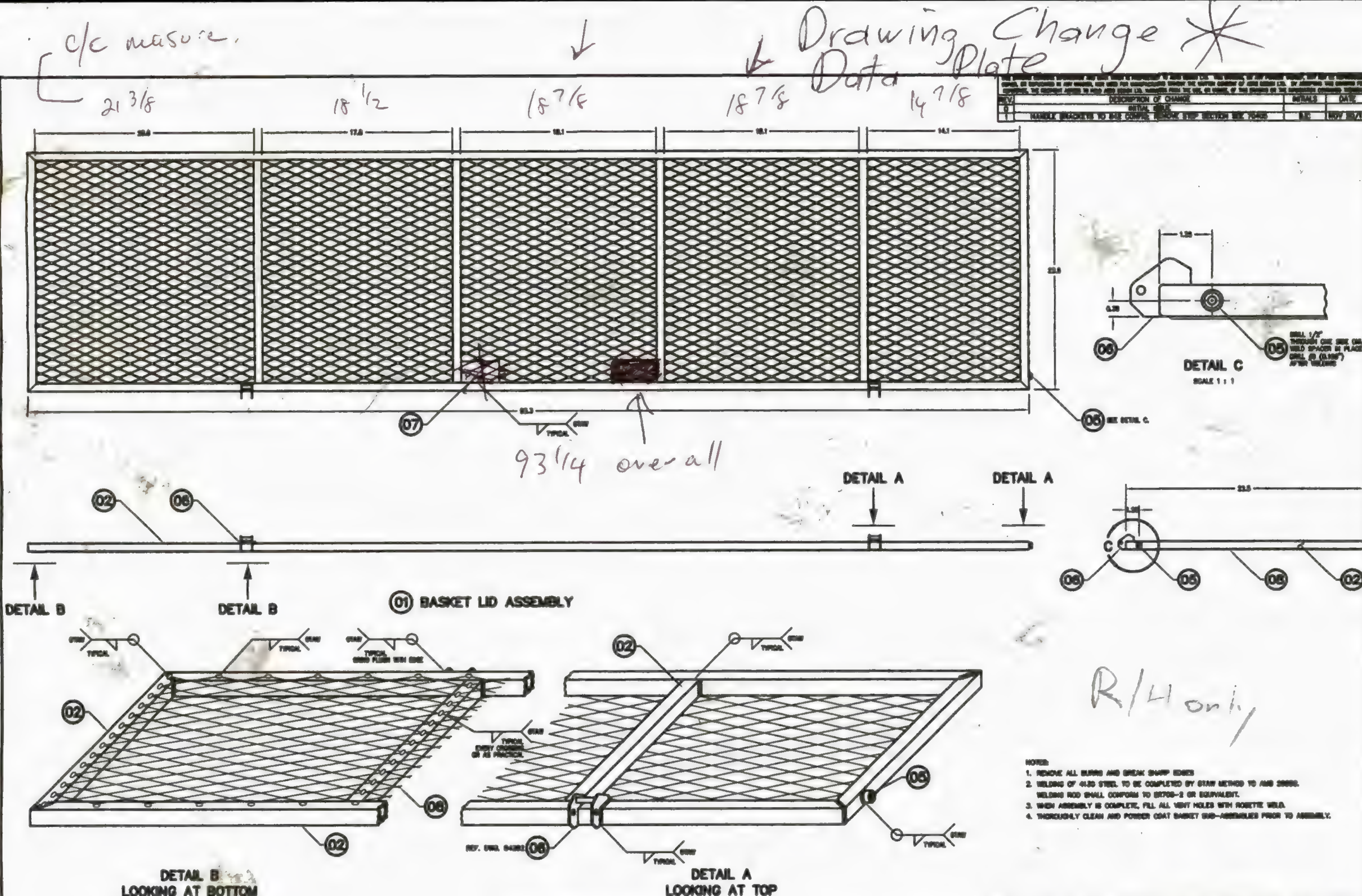
DECIMALS		ANGLES
X.XXX	±0.010	±1/2°
X.XX	±0.03	
X.X	±0.1	

AERO DESIGN LTD.

CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, [illegible]
[illegible], CALGARY, ALBERTA, CANADA, [illegible]

BELL 407, 206L SERIES
QUICK RELEASE HIGH MOUNTED CARGO BASKET
CARGO BASKET BODY ASSEMBLY

SCALE 1 : 4 | SHEET 1 OF 1 | A1 | 76611 | 1



NOTES:
1. REMOVE ALL BURRS AND BREAK SHARP EDGES
2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2680B. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
3. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
4. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY.

QTY.	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC.	
A/R	[illegible]	08	MESH		COMMERCIAL	13 GAUGE
1	[illegible]	07	PLACARD BRACKET			
1	[illegible]	06	UPPER HANDLE BRACKET ASSY			
1	[illegible]	05	LUG			
		04				
		03				
A/R	---	02	3/4" TUBE	4130 STEEL COND. N	MIL-T-6736	0.75 X 0.035 SQR. TUBE
	60632-01	01	BASKET LID ASSEMBLY			
01						

LIST OF MATERIALS

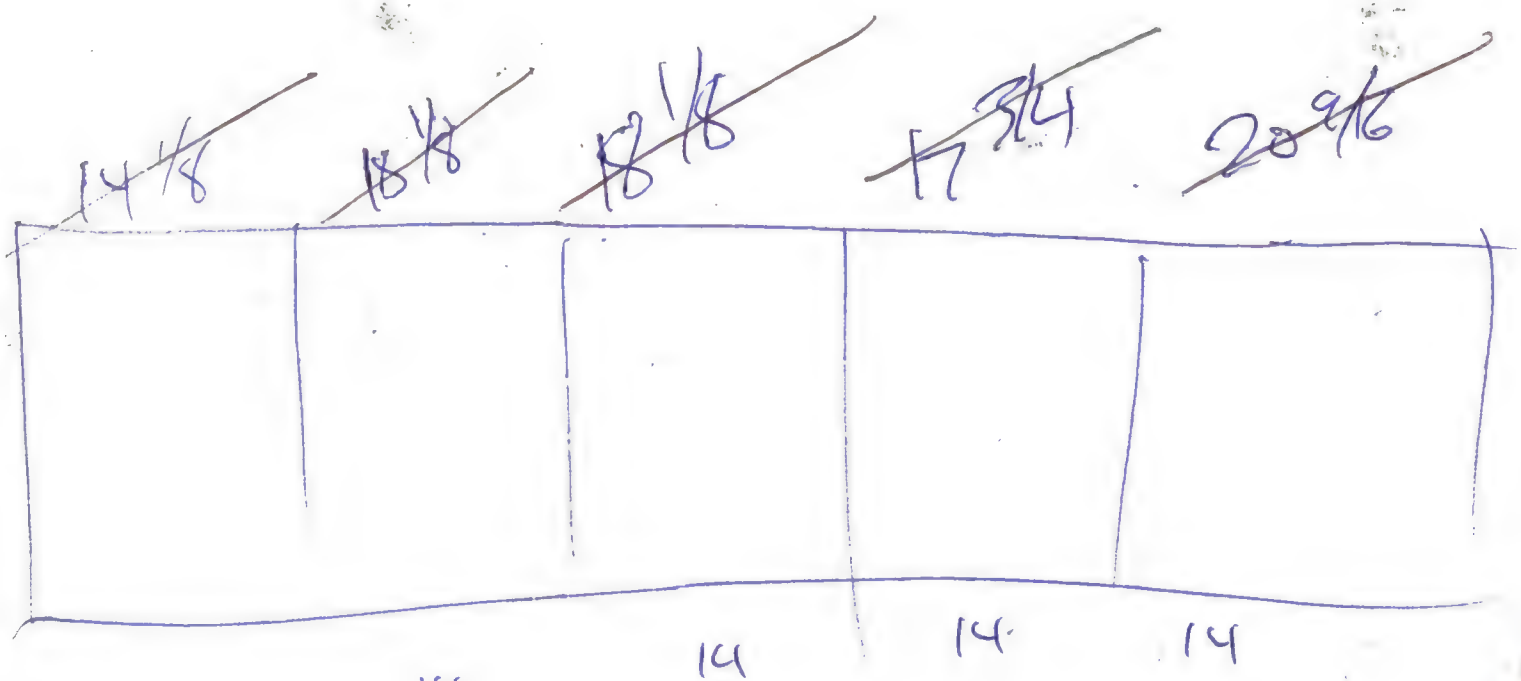
APPROVALS		DATE
DRAWN	JEFF CLARKE	12 AUG 2004
CHECKED	E. BURGON	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:
DECIMALS X.XXX ±0.010, X.XX ±0.03, X.X ±0.1
ANGLES ±1/2°

AERO DESIGN LTD.

BELL 407, 206L SERIES
HIGH SIDE MOUNTED CARGO BASKET
CARGO BASKET LID ASSEMBLY

SCALE 1 : 4 | SHEET 1 OF 1 | A1 | 60632 | 1


14 1/8
18 1/8
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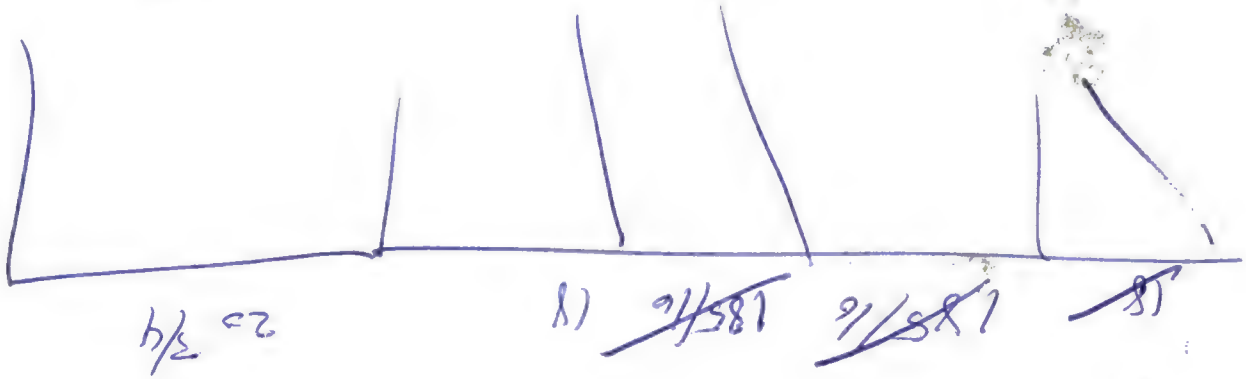
14

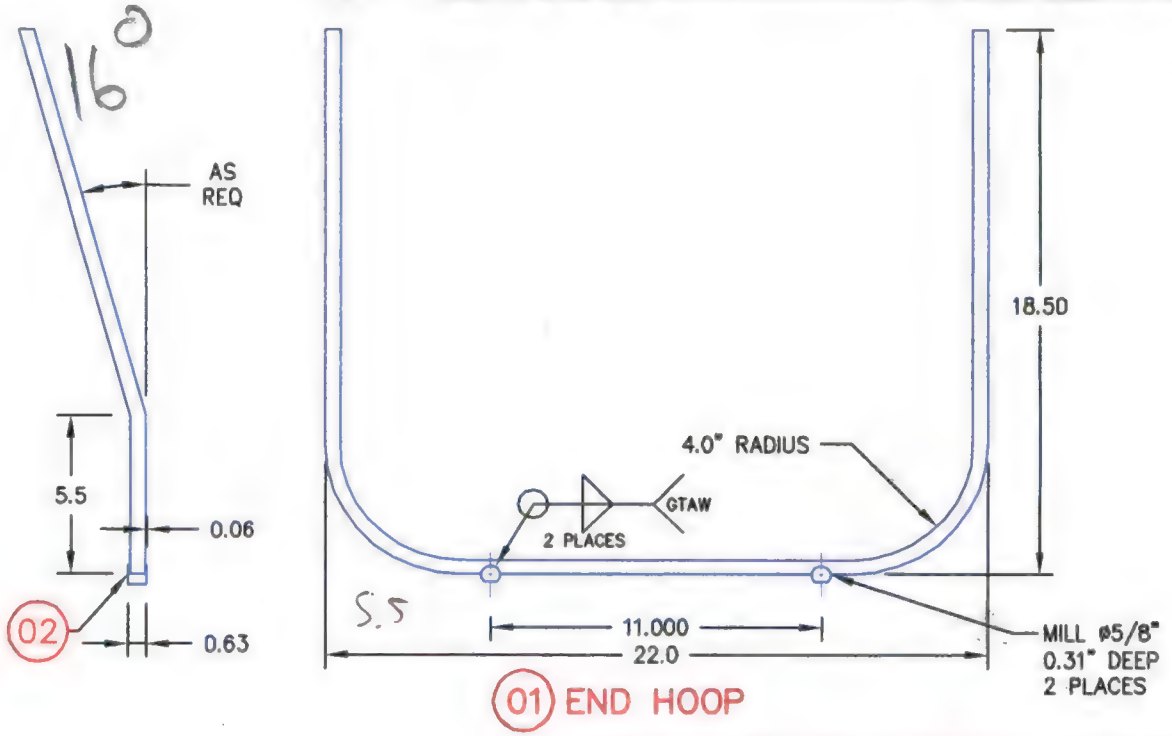


Cut 57 11/16

DEW 22 3/16 | DEW 22 3/16

@ 103° Sept 14, 2015

QTY	LIST OF MATERIALS					
01	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC.	STOCK SIZE
	76621-01	01	END HOOP	4130 STEEL COND. N	MIL-T-6736	1/2" SQR x 0.035 WALL
2	69823-02	02	LUG	1018 CARBON STEEL	ASTM A108	ø5/8" ROD



01 END HOOP

NOTES:
1. REMOVE ALL BURRS AND SHARP EDGES.
2. DRILL 3/32" VENT HOLE IN BOTTOM OF HOOP FOR VENTING WELD GASES.

APPROVALS	DATE
DRAWN: JEFF CLARKE	26 SEPT 2007
CHECKED: E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS X.XXX ±0.010, X.XX ±0.03, X.X ±0.1
ANGLES ±1/2°

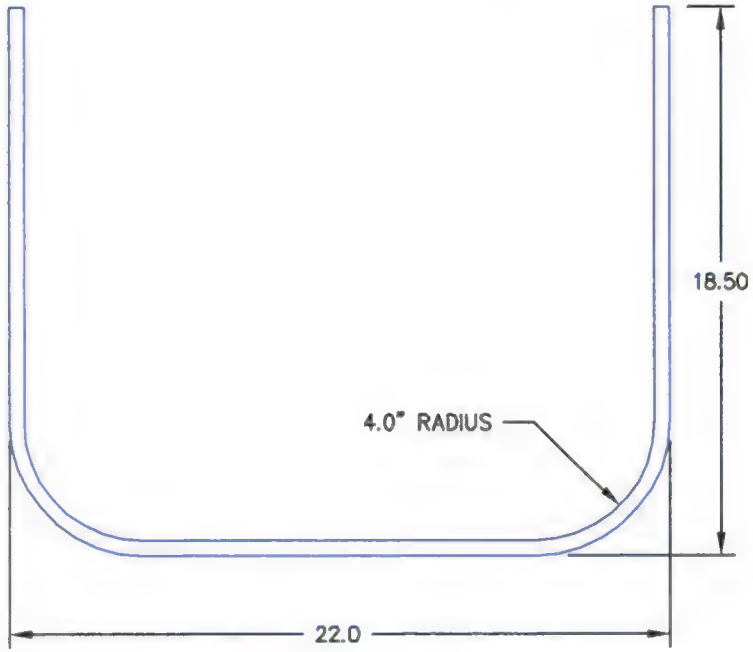
AERO DESIGN LTD.
CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M
2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7
tel: (403) 250-6027 fax: (403) 250-6333 aerodesign@telusplanet.net

BELL 407 AND 206L SERIES
HIGH SIDE MOUNTED CARGO BASKET
BASKET COMPONENTS - END HOOP

SCALE 1 : 5	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A1	76621	0

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1			

QTY	LIST OF MATERIALS					
01	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC.	STOCK SIZE
	60848-01	01	HOOP	4130 STEEL COND. N	MIL-T-6736	1/2" SQR x 0.035 WALL



01 HOOP

NOTES:
1. REMOVE ALL BURRS AND SHARP EDGES.
2. DRILL 3/32" VENT HOLE IN BOTTOM OF HOOP FOR VENTING WELD GASES.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1			

APPROVALS	DATE
DRAWN: JEFF CLARKE	26 SEPT 2007
CHECKED: E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:

DECIMALS		ANGLES
X.XXX	±0.010	±1/2°
X.XX	±0.03	
X.X	±0.1	

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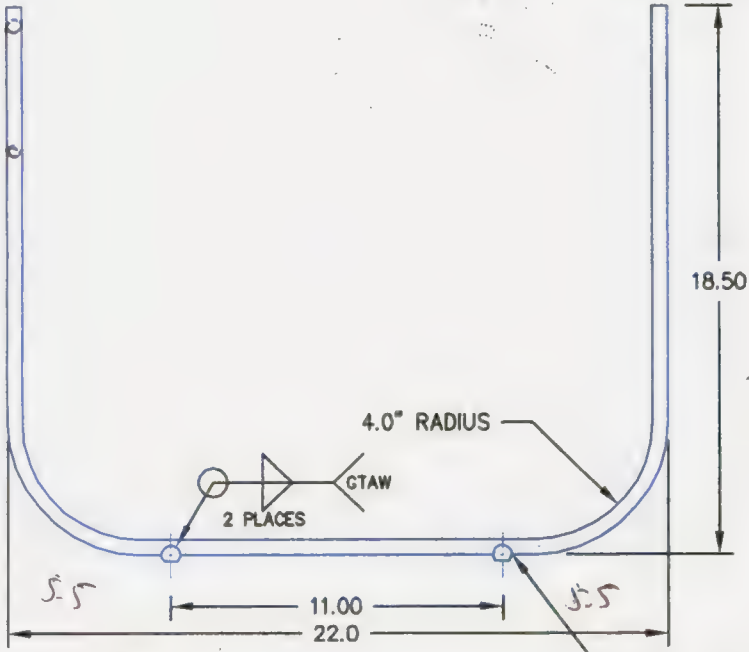
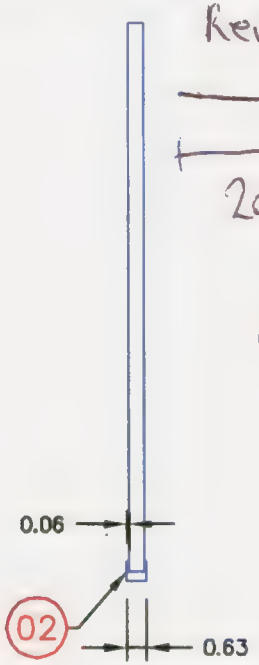
tel: (403) 250-5027 fax: (403) 250-8333 aerodesign@telusplanet.net

BELL 407 AND 206L SERIES
QUICK RELEASE HIGH MOUNTED CARGO BASKET
BASKET COMPONENTS - HOOP

SCALE 1 : 5	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A1	76623	0

QTY	LIST OF MATERIALS					
01	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC.	STOCK SIZE
1	76622-01	01	ATTACHMENT HOOP	4130 STEEL COND. N	MIL-T-6736	1/2" SQR x 0.035 WALL
2	69823-02	02	LUG	1018 CARBON STEEL	ASTM A108	ø5/8" ROD





Rev 1 Cut 54.0625

Bend 20 1/16

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@ 103°

Sept 14, 2015

01 ATTACHMENT HOOP

NOTES:
1. REMOVE ALL BURRS AND SHARP EDGES.
2. DRILL 3/32" VENT HOLE IN BOTTOM OF HOOP FOR VENTING WELD GASES.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1			

APPROVALS	DATE
DRAWN: JEFF CLARKE	26 SEPT 2007
CHECKED: E. BURGOIN	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCES ON:

DECIMALS	ANGLES
X.XXX ±0.010	±1/2°
X.XX ±0.03	
X.X ±0.1	

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BELL 407 AND 206L SERIES
HIGH SIDE MOUNTED CARGO BASKET
BASKET COMPONENTS - ATTACHMENT HOOP

SCALE 1 : 5	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A1	76622	0

Work Order: 2015-99

Date Opened: 14 SEPT 2015

Material Tracking Sheet
Bell 206L / 407
High Handle Assembly

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
		84261	**84261-01**	**Handle Assembly**		
Step 1				*Weld Lever Assembly*		
	. 2		84265-01	Lever	304 Stainless, 0.105 Sheet	
	. 2		36274-01	Bushing	304 Stainless, 7/16" x 0.065 Rnd. Tube	
	. 2		MS20615-4M3	Rivet		
	. A/R		--	Welding Rod	ER308L TIG Rod 14628	
Step 2				*Clean Up*	*None*	
Step 3				*Fabricate Handle Bar*		
	. 1		36277-01	Handle Bar	304 Stainless, 1.0 x 0.065 Rnd. Tube	
Step 4				*Weld Handle Assembly*	*None - Fuse weld, no rod req.*	
Step 5				*Clean Up*	*None*	
Step 6				*Inspection - Final Assembly*	*None*	

Work Order: 2015-19

Date Opened: 14 SEPT 2015

Material Tracking Sheet
Bell 206L / 407
HIGH Basket Hoops

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 1			**76623-01**	**Hoop**	4130 Steel, ½" x 0.035 Sqr. Tube	14049
			76621-01	**Hoop - attachment (forward)**		
Step 1				*Fabrication*		
	. 1		49210-02	1/2" Tube - hoop	4130 Steel, ½" x 0.035 Sqr. Tube	14049
Step 2				*Welding*		
	. 2		69823-02	Lug	1018 Steel, 5/8" Rod	2014-70
	. A/R		--	Welding Rod	ER70S-2	14033
Step 3				*Inspection and Finishing*	*None*	
			76622-01	**Hoop - attachment (aft) - with handle provisions**		
Step 1				*Fabrication*		
	. 1		--	1/2" Tube - hoop	4130 Steel, ½" x 0.035 Sqr. Tube	14049
Step 2				*Welding*		
	. 2		69823-02	Lug	1018 Steel, 5/8" Rod	2014-70
	. 2	84262	84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	~~2014-70~~ MR 15024
	. A/R		--	Welding Rod	ER70S-2	14033
Step 3				*Inspection and Finishing*	*None*	

Work Order: 2015-99

Date Opened: 14 SEPT 2015

Material Tracking Sheet
Bell 206L / 407
HIGH Lid Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
			60632-01	**Lid Assembly**		
Step 1				*Rim Assembly*		
	. 2		--	3/4" Tube - Long Rim (93.25")	4130 Steel, ¾" x 0.035 Sqr. Tube	14099
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, ¾" x 0.035 Sqr. Tube	14095
Step 2				*Weld Rim Assembly*		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 3				*Inspection - Rim*	*None*	
Step 4				*Frame Assembly*		
	. 4		--	3/4" Tube - Cross Member (21")	4130 Steel, ¾" x 0.035 Sqr. Tube	14099
Step 5		70405		*Option: Frame Assembly - with walkway*		
	. 10		--	1/2" Tube - walkway	4130 Steel, ½" x 0.035 Sqr. Tube	14099
Step 6				*Weld Frame Assembly*		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 7				*Inspection - Frame Assembly*	*None*	
Step 8				*Mesh Assembly*		
	. 1		--	Mesh (lid - 93" x 22")	3/4-16F Expanded Mild Steel sheet	15037
Step 9				*Weld Mesh*		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	15027

Work Order:_____

Date Opened:_____

Material Tracking Sheet
Bell 206L / 407
HIGH Lid Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 10				*Weld Lid Components*		
Step 10.a.	. 1	84263	84263-01	Lid Handle Bracket Assembly		
	. . 2		84263-02	Handle Bracket Assembly	321 Stainless, 0.050 Sheet	2014-38
	. A/R		--	Welding Rod	ER308L TIG Rod	14028
Step 10.b.	. 2		49216-01	Spacer (Lid prop)	304 Stainless, ½" Dia.	2015-07
	. A/R		--	Welding Rod	ER308L TIG Rod	14028
Step 10.c.	. 1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 11				*Clean Up*		
Step 12				*Inspection - Final Assembly*		
Step 13				*Powder Coating*		

CARGO BASKET HANDLE FABRICATION

General

These instructions apply to all cargo basket handle assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

All Models: 84261, Rev. 1

Work Order: 2015-99

Date Open: 14 SEPT 2015

Complete (initial or SCA #)

1. Weld Lever Assembly – handle lever jig required _____
   a. Set MS20615-4M3 monel rivet into socket in jig
   b. Set 36274-01 bushing into socket in jig
   c. Set 84261-01 lever onto handle jig, with rivet and bushing protruding into lever.
   d. TIG weld around bushing using ER308L rod.
   e. Fuse weld rivet to lever. Additional ER308L rod may be used if required.
   f. Repeat steps a-f using hole/socket on opposite side of jig to make opposite lever assembly.
   g. Record material POs on attached material list.

2. Clean up
   a. Clean lever assembly by media blasting with glass bead.
   b. Drill out lever bushing to O (0.316) on lathe:
      i. Grasp bushing in chuck, ensure rivet clears between the jaws.
      ii. Run at 300 RPM.
      iii. Apply a drop of Rapid-Tap to drill.
   c. De-burr.

3. Fabricate Handle Assembly _____
   a. Temporarily install handle levers (from step 2) on lid assembly. Ensure long side of handle bushings are on INSIDE (pointing together).
   b. Measure across TOP side of levers.
   c. Cut handle tubing to length measured.
      i. Handles under 40" long: 1.0" x 0.035 round tube
      ii. Handles over 40" long: 1.0" x 0.065 round tube
   d. De-burr tube.
   e. Insert tube into handle levers. Tap with a plastic mallet to seat tube flush with lever. Raise handle to ensure both levers touch stops to check alignment.
   f. Record material PO on attached material list.

4. Weld Handle Assembly _____
   a. Fuse tube to lever on both ends. Ensure levers are parallel.

5. Clean up _____
   a. Clean welded area with scotch-brite.

6. Final Inspection –
   To be completed by a different person than the previous steps. _____
   a. Welds for complete and handle for fit.
   b. Tag complete and inspected parts in preparation for installation.